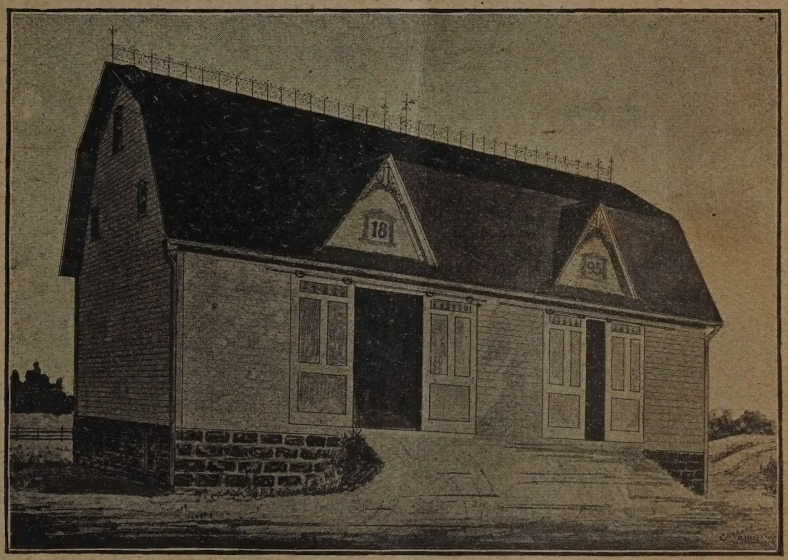
SCHEIDLER'S BALLOON FRAME BARN

And Self-Supporting Roof.

Sometimes Called the "Cyclone Barn."



PATENTED 1893. Other Patents Pending.

1902

The above Represents a Barn 38x72—18 ft. to the square, built on the farm of James McVitty, Perry, Ohio.

—o—

The barn is based on Scientific Principles, and combines

Simplicity, Cheapness and Strength.

THE CONOVER ENGRAVING & PRINTING CO., COLDWATER, MICH.

INTRODUCTORY.

We have scaled the ladder of experience and reached the top round of success.

Modern Barn Building, which consists mainly in the art of Balloon Frames and Self-supporting Roofs is rapidly coming into prominence and taking its place in the front rank with the many commodities and labor saving machines and farm implements of the present age.

The time was when the farmer wintered his stock at the straw stack, and stacked his hay and grain out doors. But we are glad to state that the day is rapidly approaching, and in some localities is a thing of the past, for the farmers stock to go unsheltered, and his provender stacked out, and exposed to the stormy elements of sleet and snow.

With the advent of the circular saw for manufacturing lumber rapidly, came the art of our subject.

The time was also when a 30x40 foot barn was large enough for all practical purposes. But the minds of the people are ever expanding; all branches of business is constantly increasing and enlarging, until it is not an uncommon occurrence for a farmer to "pull down his barns and build larger".

The art of modern barn building is equal to the occasion. Never before in the history of the world has there been such a demand for large and roomy barns, and it is not surprising, in some favored localities to find a demand for barns having from two to four hundred ton capacity, with basement room for one hundred or more head of cattle.

With our improved method of trussing and using light material, these barns can be rapidly constructed. They have passed the experimental stage, and by the many commendatory letters which we receive from our patrons, we know that its success is assured.

Highly appreciating, and kindly thanking you for past favors, and soliciting your future patronage, we are

Very respectfully,

SCHEIDLER & NEAL.

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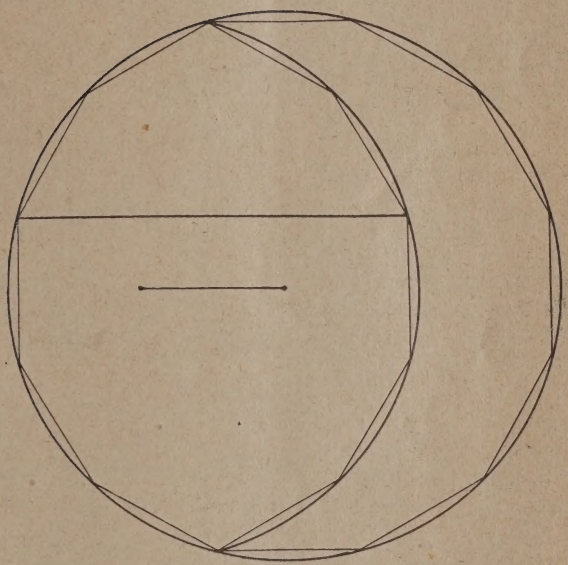
THE WORKS OF NATURE ARE ALL BASED UPON THE CIRCLE.



The pitch of the roof never changes, as will be seen in the cut above, showing the principle upon which the roof is based. The circumference of the circle is divided into 12 sections. Move the center to the right (or left) one-twelfth of the circumference or the length of one of the sections. Strike an arc in the circle which will intersect the circumference at the right of the upper and lower horizontal sections. This arc is equal to five-twelfths of the circumference. Cut off all below the perpendicular sections, and the remaining 6 sections above now represent the studding, and lower and upper sections of rafters. The same rule will apply when the circle is divided into 16 sections, which will give three sections of rafters on each side of the barn, which is used on barns above 48 feet in width.

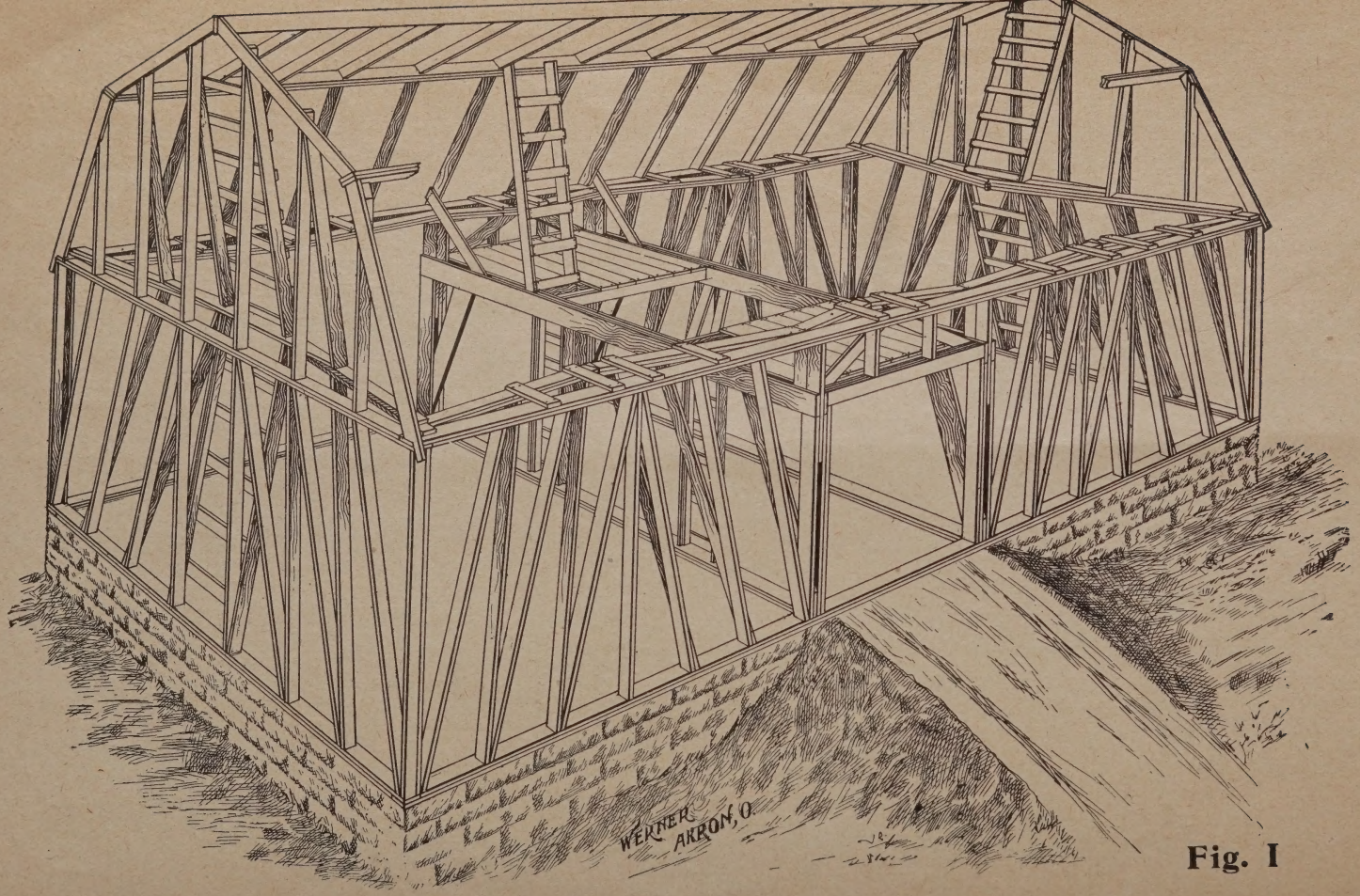


Fig. I

Fig. 1 shows the general construction of the framework of the barn, with one side of the roof cut away, giving a better view of the side and end truss work, as well as the inside inclined studding that keep the pressure of hay or grain away from the outside studding, thus preventing the barn from spreading or bulging out at either sides or ends.

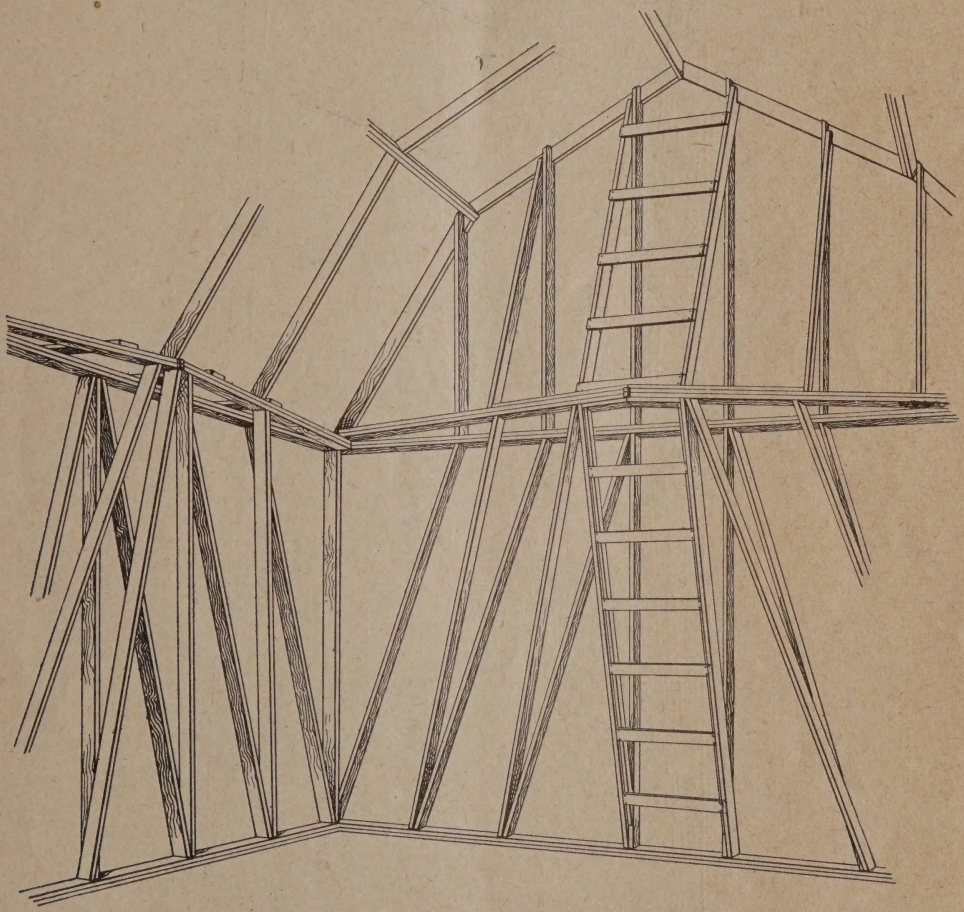


Fig. 2

Fig. 2 is a sectional view of the barn, looking towards the corner from the inside, thus viewing a portion of the side framework, as well as the end, and looking at the truss from the under side.

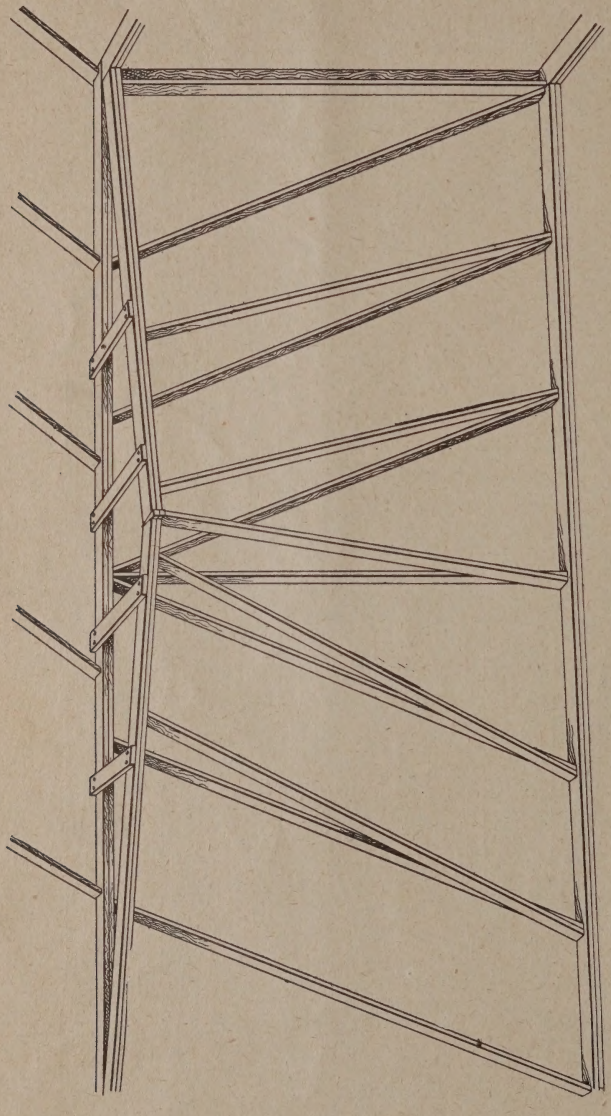


Fig. 3

Fig. 3 is section of one side of bay, viewing from the inside and looking down upon the upper side of the truss, showing clearer construction of same, and how the outside studding should brace towards the center of bay.

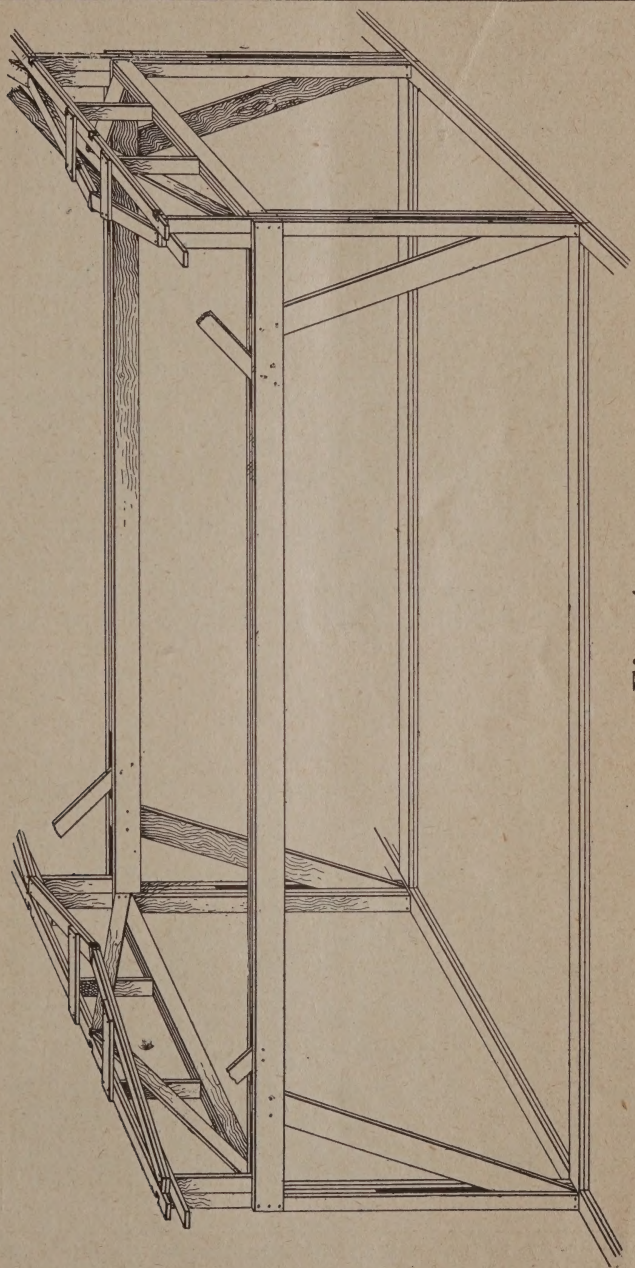
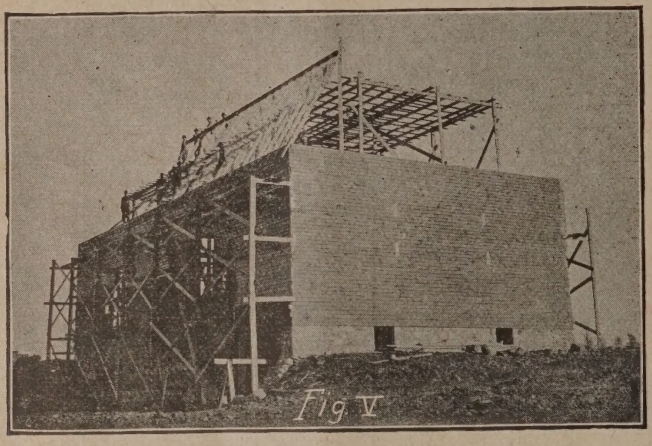


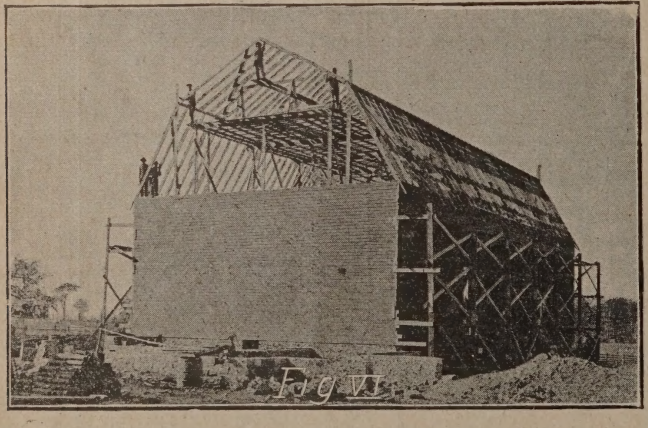
Fig. 4.

Fig. 4 shows the cross beams; the truss work over the barn doors to support the weights of the roof; the construction

of the door posts and how the large braces are put in from the door posts to the beam. For ladder supports under the cross beams, see Fig. 1.



Figs. 5 and *6* are views of a basement barn 42x80 and 20 feet above the basement to the square, and 50 feet from the basement floor to the ridge, showing the scaffolds for raising the rafters when purlin and ridge are used as shown in Fig. 1. We advise using our new wire lock which dispenses with all scaffolds above the square.



If one story barns, where the stable and granery are built in one or both ends of the barn, the inside inclined studding should not come below the upper joint.

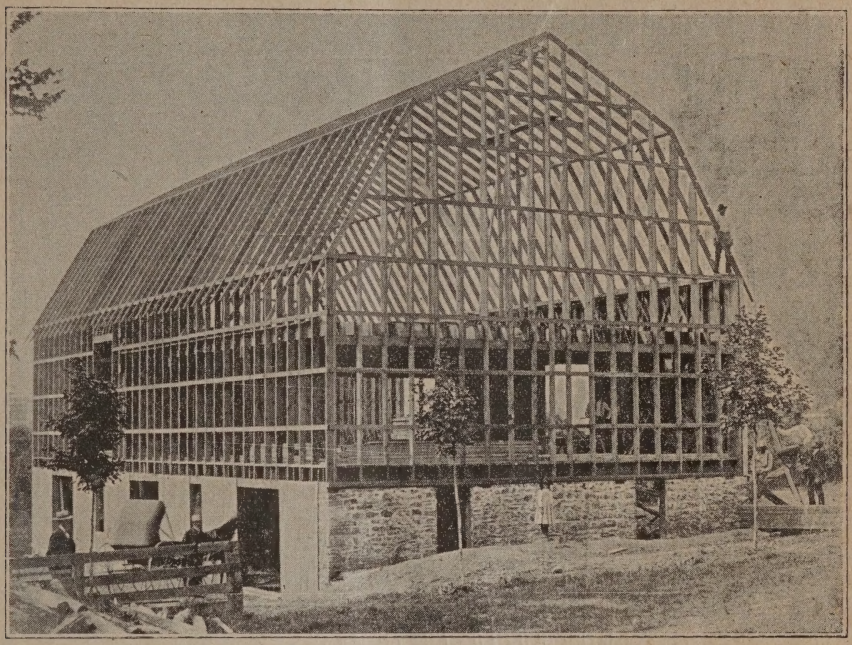


Fig. 7.

Fig. 7, is an outside view of barn frame, showing the cross ribs for boarding up and down. In this case the studding should be set bracing, as in Figs. 1. 2, etc., and set in on the sill the the thickness of the cross girts; these are then spiked to the outside of the studding which brings them again on line with the outside of the sills.

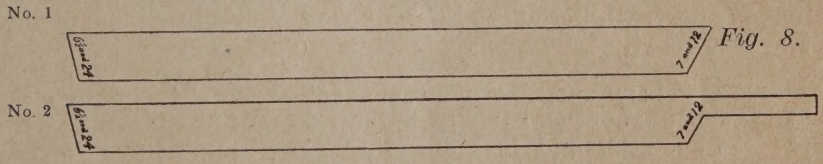


Fig. 8.

Fig. 8. When laying out the rafter patterns, lay out the upper section first, as shown at No. 1, in Fig. 8, then use this for the pattern for the lower section, simply extending the heel of the rafter for projection over the plate at the lower end as shown at No. 2. Both sections are exactly the same length from the corner of the plate to the hip, as from the hip to the ridge. The figures 7 and 12 cut the angles at the wall plate and the ridge, and $6\frac{1}{2}$ and 24 cuts the angle for both sections at the

hip. Cut rafter gaines in corner of plate to a work line 1½ inches in, and down on the outside sufficient to get the pitch of roof. This will bring the heel of rafters in perfect line in case there should be slight variations in the plate.

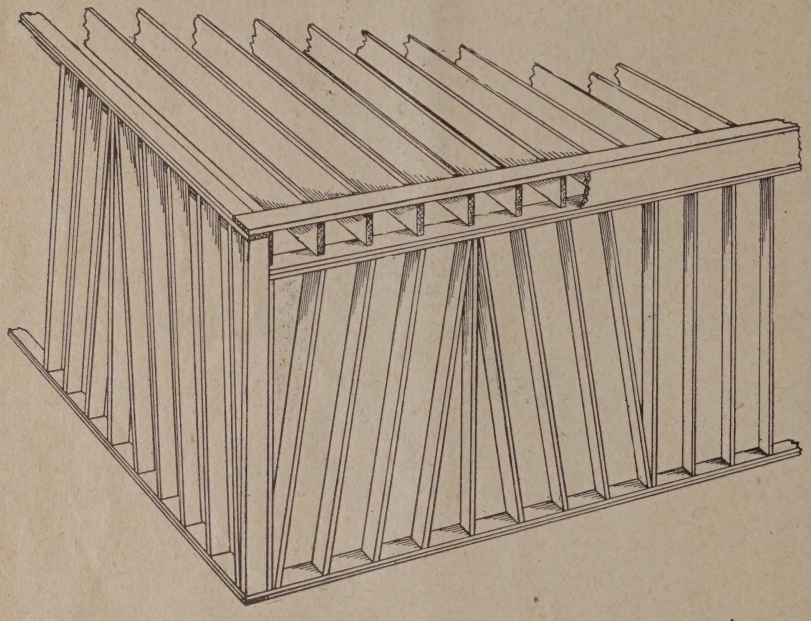


FIG. 9.

Fig. 9 shows construction of a basement frame with 2x6 studding. In barns of 36 feet or over in width, use 2x8 studding for the side wall. These and the joist are all placed 16 inches apart, while the studding above the basement are placed two feet apart.

Fig. 10 is an end view of our six section roof, 64 feet in width. This style of roof has been tested up to 60 feet in width with perfect success, and is going into general use for covering barns of extraordinary width.

Fig. 11 shows a set of rafters for our barn yard covers, having eight sections and spanning 84 feet in width. This is a new feature and has never been tested. We simply submit the idea, illustrated, for the benefit of our patrons, showing to what extent this principle can be carried. We invite both comments and criticisms on this subject as to its requirements and possibilities.

This will be more fully explained in our Hand Book.

ROYALTIES.

We realize that the price of all farm products have greatly advanced, and in some cases more than doubled in value in the past few years, and from a business standpoint it would seem that we would be justified in advancing the price of Barn Rights

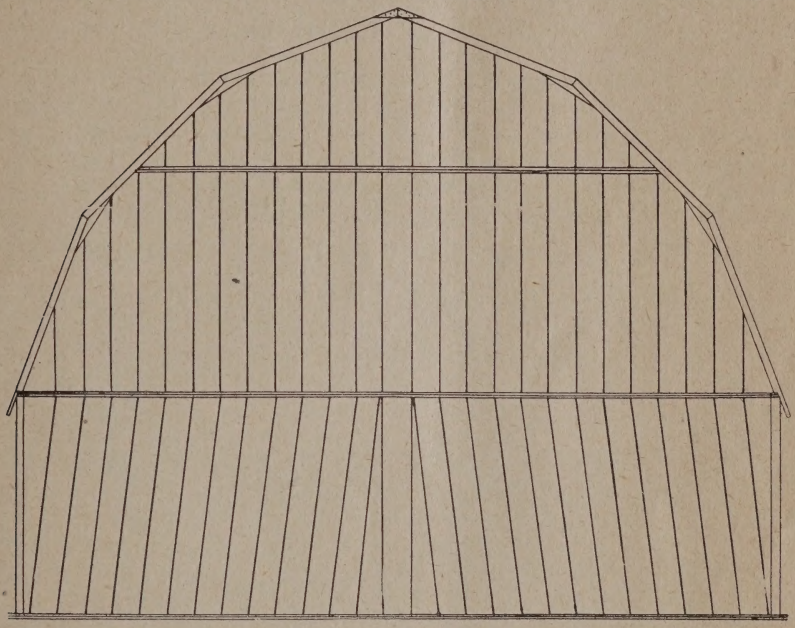


FIG. 10—SIX SECTION ROOF.

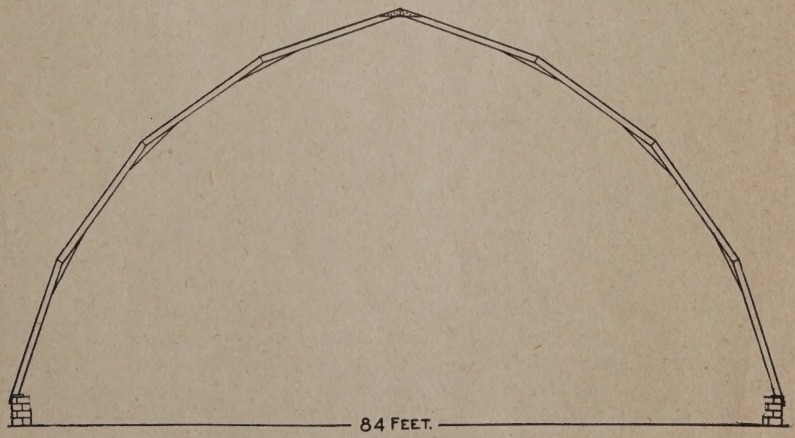


FIG. 11—BARN YARD COVERS.

also. But after due deliberation we have decided to let the price remain the same as heretofore, which is TWENTY-FIVE CENTS per lineal foot for length of barn. Dividing the length of the barn by four will give the royalty in dollars and cents.

Where the ROOF ONLY is used, as in case of re-roofing old barns, the royalty is only fifteen cents per lineal foot.

PATENT RIGHTS.

Our various ideas of barn construction are all secured to us by LETTERS PATENT of the United States. Any person using the same, or ANY PART THEREOF, without permission from us, or one of our agents, will be prosecuted to the full extent of the law. And any person informing us of parties using our invention, or any part thereof, will be liberally rewarded.

PROTECTION AGAINST FIRE BY LIGHTNING.

It is for the interest of every farmer to keep his buildings insured against *fire* by *lightning* or otherwise. But when he can so construct his barns that lightning, or the current of electricity will not be attracted toward the barn during a thunder storm, it is for his interest to do that also, which gives him double protection. The open space which is formed around the outside of the Bay by means of the inside inclined studding, is of the greatest importance, as all hay and grain when put into the barn, no matter how well it has been cured, must and will pass through the sweating process; and unless there is means provided whereby those gases can gather at the outer surface of the mow and escape, they will attract lightning, which is the cause of so many barns being destroyed in this way. Out of the many barns that we have built there has not a single report come to us that any was ever destroyed by fire in that way, which gives us greater assurance that our system of construction is proof against fire from that much dreaded source.

GENERAL REMARKS

IN REGARD TO CONSTRUCTION OF BARN.

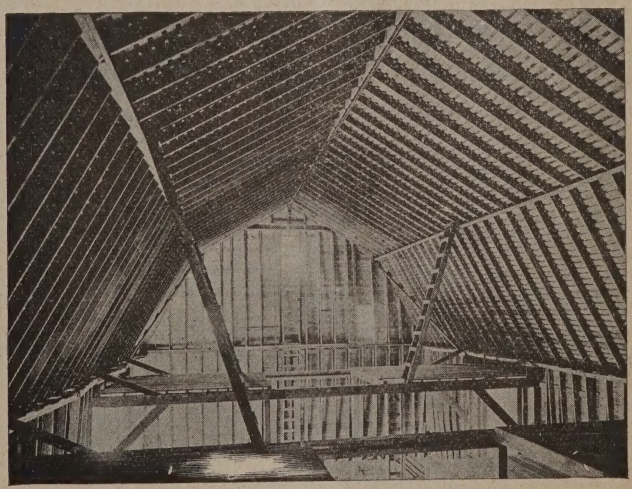
Studding and rafters are all spaced two feet apart from centers.

In raising, spike a section of the plate to the upper end of two or three studding and set them up; afterwards fill in the remaining studding. Continue in this way until the studding are all set up around the outside. Have the door posts ready and set them at the proper places, at the same time you are setting up the outside studding.

SETTING THE STUDDING BRACING.

In all large barns and especially if the bill stuff is green, or if you are building in a country where *cyclones* prevail, the studding should be set bracing, as shown in cuts 1, 2 and 3, Space the sills and plates two feet from centers, then lean the studding just two feet or one of the spaces. These studding will then require to be 1½ inches longer than the perpendicular ones. When the studding are set bracing, they should not be thoroughly nailed at the foot until after they are all set up and the first plate has been spiked on. If the plate is not in perfect line and requires raising or lowering at any point, the adjustment can be made by moving the foot of the studding either way, until a perfect line is obtained, after which they should be thoroughly toe nailed.

Put in the cross beams and large braces from the door posts to the beams; next build the trusses on each side of the barn, cutting the inside inclined studding under the truss before doubling the same.



The above cut shows the inside loft of a barn 40x80.

Before putting on the siding, cut the ends in a mitre box and pay no attention where the joints come. In this way there will be no waste. Always side up to the square before putting up rafters.

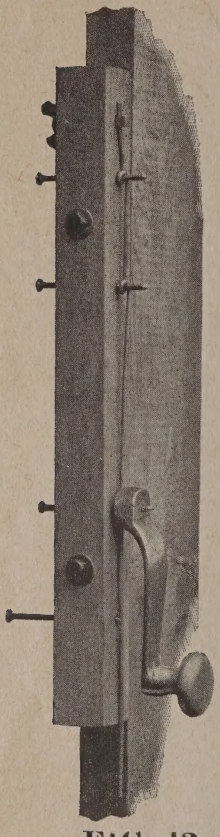


FIG. 12.

WIRE LOCK.

Our Wire Lock for securing and holding the rafters together at the hips has been thoroughly tested on the four and six section roofs. It is a great saving both in material and labor, as it enables us to raise the rafters and get them in position without the aid of any scaffolding above the square of the barn.

Fig. 12 shows a device for turning the eyes on the wire which are used in the construction of the wire lock. We furnish the device to customers at one dollar each.

Fig. 13 shows the rafters having their outer points cut off from 3-16 to 1-4 inch and brought together before the wires are nailed on. Use 20*d* for nailing on, and secure the ends of the wires with a common fence staple, as shown in the cut. The tension is regulated by the amount cut from the points. Soft wood will require more than hard.

FIG. 13.

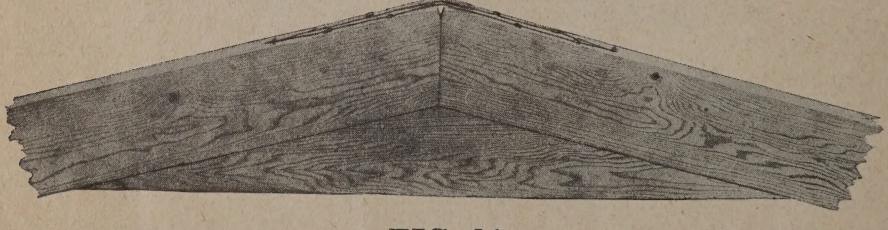


FIG. 14.

Fig. 14 shows the position of the rafters when brought to the proper angle, and having the gambrel block spiked in, for which use 16, 20 and 40*d* spikes. These gambrel blocks should be sawed out of 2x6 dry material, and it is sometimes necessary to bore for the large spikes.

A piece of tin or sheet iron $1\frac{3}{4}$x$3\frac{1}{2}$ is put under the wires and extending each way over the joint, as shown in Fig. 13. This will prevent the wires from embedding themselves in the timber and thus lose their tension. The lock is made of No. 9 wires, which are cut in 24-inch lengths before they are put in the device for turning the eyes.

These gambrel or hip joints are all put together on the ground, and should be put together to a templet or gauge to assure uniformity after being set up. The collar beam is nailed across the upper joint after they have been taken up on the scaffold and placed in position for raising.

HEIGHT FROM SQUARE TO HIP.

The perpendicular height from the plate to the hip on a barn 30 feet wide, is 9 feet and 6 inches, and for every 2 feet in width, more or less, add or substract 8 inches.

TABLE OF LENGTHS OF RAFTERS

FOR BARNS OF VARIOUS WIDTHS.

30 ft.	wide,	meas'ng	from	cor. of plate	to hip,	from hip	to ridge,	11 ft.	00 in.
32 "	"	"	"	"	"	"		11 "	9 "
34 "	"	"	"	"	"	"		12 "	6 "
36 "	"	"	"	"	"	"		13 "	3 "
38 "	"	"	"	"	"	"		14 "	00 "
40 "	"	"	"	"	"	"		14 "	9 "

In making out a bill of rafters for a barn always add two feet to the lower section for projection over the plate. The table only gives the lengths from the corner of the plate to hip and from hip to the ridge which are equal in length.

When purlin and ridge are used, instead of the Wire Lock, deduct equal parts of their combined thickness from each section.

ABOUT SIZE OF MATERIAL, ETC.

In all ordinary barn building, use 2x10 for the sills, 2x8 for plates, purlin and ridge, these are all doubled excepting the ridge which is put in single thickness; use 2x8 or 2x10 for door posts, 2x12 for the beams and braces from door post to beam; 2x6 for the studding, rafters and the trusses, excepting in bays above 24 feet in depth, use 2x8 for trussing; 2x6 is sufficient for trussing the ends of any width barn, as the studding incline both ways from this, forming a compound truss. Always double the trusses same as the plates.

NAILS, SPIKES AND SPIKING.

Use 30*d* nails for spiking through the plates into the ends of the studding and rafters; 20*d* for toe-nailing studding and rafters on the sills and plate. When hemlock or pine or any other soft wood is used for the frame, use 10*d* for nailing on siding and roof boards and double nail. Use some 40*d* where three or more ply are nailed together.

Some mechanics use more nails than others. We favor and recommend in this class of buildings, to nail and spike thoroughly in every particular.

WINDOWS.

We recommend using a window sash 22 inches wide as this saves misplacing the studding. A single 8 light sash, 9x12 glass, two glass wide and four high, or a single 24 light sash 6x6 glass, three glass wide and eight high; either of those make good barn windows. The studding on each side of the space form the jambs for the windows.

FACIE, CORNER AND HIP BOARDS.

Use $3\frac{1}{2}$ and $4\frac{1}{4}$ for corner boards, $4\frac{1}{2}$ for facie at eaves and gables and for window casing, $3\frac{1}{2}$ for ladder rounds. Use a $4\frac{1}{2}$ inch strip when turning the hip with a shingle roof, nail the strip on the last course of shingle just below the hip, so the first course above will strike the corner of the strip and project over two inches same as the eaves.

CROSS BEAMS.

The cross beams in the barn on each side of the driveway are not in the way for unloading; but are a benefit to mow against in a high barn. In a barn 40 feet wide with this style of roof and 18 feet studding, it is 24 feet above the beams to the track.

WEDGES.

The wedges, or keys should be sawed from hard, dry, two inch plank, seven inches long and $1\frac{1}{2}$ inches thick at the large end. Do not drive the wedges until after the truss and plate have been securely tied together with short pieces of plank. The standard spring of the truss at sides and ends is two feet from the outside of plate, to inside of truss, where the wedge enters.

Our improved method of setting the outside wall studding bracing, as shown in the catalogue, is a great success, as it prevents the barn from being racked out of plumb, or otherwise twisted out of shape in case of a heavy wind storm, or tornado. A barn built in this way will slide on its foundation walls before it could be racked out of shape, and this sliding on the wall can also be prevented by setting a number of long iron bolts in the wall, allowing them to project far enough above the wall to reach through the sill, and firmly secured with a heavy bur.

We would suggest that in barns of 80 or 100 feet or more in length, that for convenience, there should be two driveways, and three bays, this brings one of the bays between the driveways. The granery then should be in the center bay and extend across to each barn floor with doors on each side, which also affords passage from one floor to the other. The space above one of the floors can all be utilized by having some movable joists to fill in the draft space, and lay some loose boards on top; then fill from the other barn floor with slings, or horse fork.

Farmers who have old timber-frame barns, with 12 or 14 ft. posts, can increase the capacity nearly one-half by putting on our self-supporting roof, leaving the old roof on until the new rafters are raised; this affords scaffolding to work from.

ADVANTAGES CLAIMED FOR THE SCHEIDLER BARN.

1st. No long square timbers to handle, frame and raise.

2nd. Farmers can have scrubby or refuse timber sawed into studding and rafters and build a barn of this kind.

3rd. Three men will get a barn ready to raise in one day, and do the raising within themselves, with the aid of a few helpers.

4th. Not necessary to build the side walls as high as the old style to get the same amount of room.

5th. Sixteen feet studding with hip roof, has same capacity as 22 feet posts with the old style third pitch roof.

6th. No cross girts or collar beams in the way to obstruct the use of hay fork or slings.

7th. Good mowing or storage room clear up to the ridge.

8th. No racking of the barn by wind storms, when the studding are set bracing.

9th. The sides and ends of the barn can never bulge out with our compound system of trussing.

10th. The roof will never sag or settle out of shape and become unsightly, as is common with the old style.

11th. A saving in material where capacity is taken into consideration.

12th. The roof can be placed on old, low timber-frames, increasing the capacity one-third and improving the appearance of the barn.

13th. Is equally well adapted for slate or metal roofing as wood shingle.

14th. The barn is modern in appearance and up to date in every particular, adding beauty and value to the farm home.

15th. The space formed between the outside and inside inclined studding, form an air chamber which is of great benefit to hay or grain when passing through the sweating season, which makes it a preventative against fire by lightning, as there never has any of these barns been destroyed by an electric storm.

DESCRIPTION OF A MODERN DAIRY BARN.

The large dairy barn of Mr. J. N. Neal, which is built after the Scheidler system, on his farm just outside the city limits, in the year 1899, of which a large cut appears on the folder on the inside of catalogue, is 38x100 ft., having a 9 ft. basement and 16 ft. studding above the basement, being 26 feet from the ground to the square and 45 feet to the ridge. This barn has a storage capacity above the basement of 207 tons of hay or grain. There are two silos of 100 ton capacity each, in one end of the barn, starting at the bottom of the basement and extending 25 feet in height. Eighty-four feet of the basement is fitted for dairy cows, twenty-two on each side, facing an alley in the center. Cement floor throughout, with gutter behind the cows for sanitary purposes. The stancils are modern, giving the cow perfect freedom. All the modern improvements have been adopted for the comfort and health of the cows, as well as cleanliness and purity of the dairy products. Cold air ducts and foul air flues are provided in abundance for maintaining an even and pure temperature in the basement.

Separated from the main building by driveway are rooms for washing dairy utensils, ærating the milk and keeping same in cold storage, built on the outside and attached to the main barn. Adjacent to these rooms stands the ice house, with capacity for a dairy of fifty cows.

In close proximity stands the horsebarn, 30x48 ft., having capacity for six horses, also bins and loft for hay and grain enough for the season, as well as storage for half a dozen wagons and buggies. Pure well water is forced by wind power into a large reservoir, built on a rise of ground near the barn, from which water is forced through pipes, into all of the above buildings for the use of stock as well as other purposes pertaining to the dairy.

The Dairy Inspector, in making his rounds of the State of Michigan, pronounced this the most practical dairy barn in the State.

In all respects the barn is modern, and no pains have been spared to bring it up to date in every particular. Anyone desiring further information in regard to this barn should correspond with the proprietor, J. N. Neal, Coldwater, Mich.

Clipped from the Chatham Courier, N. Y., Feb. 8, 1902.

MODERN BARNS: The construction of farm barns is being revolutionized in this progressive age.

The old fashioned frame barn with its raising bee, attended by a half hundred neighbors is passing into days of remem-

brance only. While about everything a farmer uses is patented, it will surprise not a few to learn that the latest improvements in barn building is also covered with letters patent.

Some of these up-to-date barns built in this vicinity, in the last year, is one by Mr. Jerry Browning, of the Sunnyside Dairy Farm in Chatham. It is in size 40x65 feet and 50 feet in height, with a basement under all. Its storing capacity is 200 tons. The interior is arranged to accommodate a large herd of cows, with all modern conveniences.

Mr. George McClellan of the firm of McClellan & Dardess, of Chatham, on his Kline Kill farm, his barn is 40x85 with a basement to accommodate 50 cows.

Sylvester Rivenburg, of Ghent, 40x50 with basement; F. S. Miller, of Valatia, 40x50; E. G. Palmer, of Chatham, 24x40, and Lynd Bros. on Lyndhurst farm, of Schodack, 40x200 feet, all built in 1901. These barns are known as the Scheidler Balloon Frame Barn, with self-supporting roof and originated in Michigan.

The advantage over the old method of building being that no long square timbers are used, and consequently there is no extra help for raising necessary. Barns 60 feet and upward in width can be spanned without the use of purlins, girts or collar beams to obstruct the interior, no bulging of sides when filled, and the one marvel about it is that a barn 40x50 feet with the usual amount of help can be built complete in 15 days.

One final feature of the barn is the air chamber all around the sides and ends, allowing a free circulation of air to carry away all gases arising from uncured crops, and the patentee claims that not one of these barns built with this air chamber was ever destroyed by lightning.

It remained for Mr. Mark Souls, a Chatham contractor and builder, to catch this western idea, and having secured the right for this and adjoining counties, the above buildings speak well of his enterprise in introducing this up-to-date scheme of barn building in this section.

TESTIMONIALS.

The following is a partial list of names and localities in different states, of parties who have built our balloon frame barns. Anyone contemplating to build in the near future, and living in close proximity to any of the parties having barns, would do well to correspond with them, or a still greater satisfaction would be to go and inspect the barns—for there is no descriptive *literature, cuts nor models* that will satisfy the mind so readily as to see the real article, full size and in pratical operation and use.

SCHEIDLER'S BALLOON FRAME BARN AND SELF-SUPPORTING ROOF.

FROSTBURG, MD., Jan. 22, 1902. MR. JOHN SCHEIDLER, COLDWATER, MICH., *Dear Sir:*—Needing a barn and expecting to build next season, I last spring investigated the several systems of barn framing (I am a house carpenter by trade) and yours I found superior to them all. I showed it to others who were preparing to build, and they, seeing its advantages over other methods of framing, adopted it, and are well pleased with their barns. One of these barns is owned by Mr. Floyd Crowe, Finzel, Md., size 40x60; the other owned by W. E. G. Hitchins & Co., of Frostburg, Md., is 50x100. Prospective builders have come a distance of 25 miles to inspect these barns, and in every instance have had bills made out for a Scheidler barn. I now have four large barns to build next season and expect to sell rights for more. I have purchased my home county, Garrett; and so firmly convinced am I that this is the coming barn that I intend to purchase adjoining territory.

Very truly, C. ARTHUR MURPHY.

AVONDALE, MICH., FEB. 1, 1902. *To Whom it may Concern:* For the last year I have been planning to build another barn, but what kind was the question that bothered me, as suitable timber for an old fashioned frame barn was scarce. So I examined different kinds of balloon and plank frame barns, but none of which exactly suited me. Some were too light and frail, with ends and sides bulged out of shape with the weight of hay and grain. Finally I got a catalogue of the Scheidler patent balloon frame with self-supporting roof, giving cuts and descriptions. This struck me at once as being *the barn* I was looking for; but wanting to see the *real thing* I made a trip of about 100 miles to see the fine large barn of Mr. Reynolds, two miles south of Marlette, Mich. This barn is 48x124 feet, and the finest barn in all respects I ever saw; and I am now getting out timber and material to build a barn in the spring, and have taken the agency for the county. I have already got specifications and plans for four other barns within a radius of 1½ miles of Avondale, to be built on the Scheidler plan for the following named persons, all to be built next spring: C. L. Shadley, dimensions, 40x70, with wing 30x50; Byron Clark, 40x62, wing, 30x40; D. Collins, 40x60, wing 30x40; O. Clark, 48x80, with basements under all. And in conclusion will say to anyone wanting an up-to-date barn in every respect to build a Scheidler Patent Balloon Frame with Self-Supporting Roof, and be happy.

Respectfully, L. G. CLARK.

MICHIGAN.

M. Bernard, Coldwater	32x 60	W. J. Bucklin, Hatmaker	32x 60
Archie Cole, "	42x 80	J. A. Greenamyer, Coldwater	32x 48
Abe Shurtz, Batavia	36x 72	J. H. Van Nuys, Colon	32x 48
John Keahoe, Bronson	36x 50	B. J. Frederick, Coldwater	41x108
Geo. Baad, Sherwood	40x 80	J. N. Neal, "	38x100
Harry Smith, Batavia	32x 50	Dr. Baldwin, "	38x 60
Cyrus Sanders, Gilead	32x 46	John C. Maxon, "	32x 46
Frank Barnhart, Union City	36x 90	O. Darlington, Wheeler	32x 40
G. E. Lobdell, Bethel	32x 44	Louis Dart, Hatmaker	32x 70
Mary C. Norris, Albion	28x 40	J. L. Shigley, Hopkins	36x 56
Miss J. Conklin, Dowagiac	42x 54	Levi Davis, East Gilead	32x 60
Dwain Reynolds, Marlette	48x124	Francis Keyes, Bronson	32x 44
Horatio Butler, Marlette	60x 84	A. R. Hughes, Bethel	30x 40
M. H. Knight, Tekonsha	32x 48	L. Teachout, Lockwood	32x 44
Reuben Coleman, Coldwater	30x 58	Levi Harley, Gilead	36x 68
Chas. A. Hallenius, Gaylord	42x 60	Asa Cranson, Bethel	24x 32
David Gillson, Elmira	32x 60	J. B. Van de Vanter, Gilead	30x 40
Geo. Wheeler, Hatmaker	32x 50	S. C. Mabrey, East Gilead	30x 60

OHIO.

George Duprey, Van Wert..40x 82
Henry Smith, Van Wert.....40x 82
Max Winkleman, Ottoville ..40x100
Charles Post, Ottoville 40x 72
W. F. Parker, Van Wert....34x 62
C. H. Clippinger, Van Wert.36x 68
Henry Hipshire, Van Wert..34x 60
John M. Jones, Jonestown...36x 62
R. E. Owen, Venedocia.....40x 80
T. M. Berry, Van Wert 36x 80
T. S. Ely, Pandora.....40x 60
George Breece, Lima.....34x 60
Anthony Herman, Ottoville..36x 66
Barney Blemmer, Ottoville..40x 70
F. Brumscutter, Ft. Jennings.30x 66
E. W. Nicodemus, Van Wert.32x 90
John J. Hankins, Van Wert.36x 70
E. Morris, Venedocia.....36x 72
Amos Boemer, Ft. Jennings.34x 64
Samuel Flora, Van Wert....30x 40
James Parker, Ohio City....36x 68
James McVitty, Perry.....38x 72
J. W. Nicodemus, Van Wert.32x 50
J. D. Stalter, Rockford.....36x 50
Abraham Crider, Lima.....32x 50
M. P. Hammond, Danville...36x 56
C. L. Campbell, Cambridge..45x 90
John Oter, Eaton.....36x 60

NEW YORK.

George McClellan, Chatham.40x 85
Jerry Browning, " .40x 65
E. G. Paliner, " .24x 40
Lyme Bros., Schodack.....40x200
Sylvester Rifenburg, Ghent..40x 50
Frank Flanigan, " .28x 56
F. S. Miller, Valiter.....40x 50
P. H. Rhodes, Clarence Center 40x120
L. E. Strong, Lin'enhurst, L. I. 30x 49
H. C. Keator, M. D., Rosendale 32x 72
J. D. Buckley, Bealsburg...40x 80
C. D. Hall, Lockport.....36x 80
Thos. Sherman, Seneca Falls 40x 80
John W. Thorpe, " ..
Carles A. Hawley, " ..
Wm. W. Morehouse, Magee.
Edgar Cassidy, Ovid.....
J. U. Hammond, East Vanch.
L. C. Godley, Romulus.....
Harry Munson, Tyre.....

INDIANA.

J. L. Romack, Sharpsville..42x 64
Clint Youngman, Sharpsville.32x 40
William Brockus, Wiles 40x 50
Louis Hinkley, Wiles.....46x 64
M. J. Rippey, Syracuse 38x 64
Frank Menzie, Warsaw.....34x 44
Osias Moody, Hamilton 40x 62
Scott Grisaw, Sharpsville...32x 40
Perry Berkey, Goshen... .40x 60
A. A. Smith, Orland.....30x 32

PENNSYLVANIA.

S. McCreary, Neshannock Falls...
.....40x 80
John Prescot, Mount Air....40x 60
Milton Fullerton, Mount Air.38x 54
Harvey Cambel, Moravia....40x 60
Milton Kyle, Moravia.....34x 32
J. W. Davidson, Irish Ripple.40x 60
James W. Seibert, Somerset.50x100
Jacob S. Loucks, Scottdale..36x 50
W. M. Saylor, Trent.....36x 50
George H. Love, Hites.....44x 76
James B. Saylor, Somerset..60x100

ILLINOIS.

C. F. Shinkle, Bloomington.36x 46
Jurgen Ennen, Damon.....32x 42

MARYLAND.

Floyd Crowe, Finzel.....40x 60
W. E. G. Hitchins & Co., Frostburg
.....50x100

WISCONSIN.

S. W. Chamberlain, Antigo.36x 54

MASSACHUSETTS.

E. J. Stevens, West Groton.36x 54

CANADA.

Andrew Bellar, Millbank....40x60

We have numerous glowing testimonials from the above parties, but want of space forbids publication.

MODELS.

To Parties intending to build, and who do not get the idea fully from the cuts in the catalogue, we will forward a small model, showing construction. Carpenters having models to go by cannot make any mistakes. Parties ordering model must pay express charges one way, and hold the same until we order it sent to some other point.

HAND-BOOK.

To meet the constantly increasing demand for bills of material for barns, which we are no longer able to supply separately, we have carefully prepared and are publishing a Hand-Book and Ready Reckoner for the benefit of farmers and carpenters, or anyone desiring to build a large and roomy barn.

This book contains Bills of Material for twelve barns of different dimensions, varying from 30 to 64 feet in width, and from 48 to 200 feet in length, with simple rules for changing any of the bills to barns of different lengths or heights.

The book contains much other useful information, such as getting the length of rafters by figures for a 4, 6 or 8-section roof, and giving the figures for cutting the different angles of each; short methods of getting the surface of the different gables, and the capacity of the various barns in cubic feet and tons.

Carpenters usually charge one dollar for making out bill of material for an ordinary barn. To partially remunerate us for the work and to aid in defraying the expense of publishing, etc., we have put the price of the book at FIFTY CENTS, which is in reach of anyone desiring information of this kind. CARPENTERS ESPECIALLY, and FARMERS who are contemplating building now or in the future, should be in possession of one of these books.

ACTIVE AGENTS WANTED IN EVERY COUNTY.

Agents will be required to give reference as to their standing, and mechanical and business ability to take charge of the work in their respective counties.

JOHN SCHEIDLER,
Coldwater, Mich.

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